PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACT	TION	See Form PCT/IPEA/416		
04-108					
International application No.	International filing date (d	day/month/year)	Priority date (day/month/year)		
PCT/US04/05905	27 February 2004 (27.02.				
International Patent Classification (IPC)	or national classification and	1 IPC			
IPC: G09G 5/00(2006.01) USPC: 250/221,222.1;340/541,545.3,5	55, 556, 557;345/175,177;3	41/26			
Applicant		,			
OTIS ELEVATOR COMPANY					
1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.					
2. This REPORT consists of	a total of 💪 sheets, incl	uding this cover shee	t.		
3. This report is also accomp	anied by ANNEXES, cor	nprising:			
a. \bigvee (sent to the applicant and to the International Bureau) a total of $\frac{\mathcal{L}}{2}$ sheets, as follows:					
sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).					
sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.					
b. (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).					
4. This report contains indica	tions relating to the follo	wing items:			
	asis of the report				
Box No. II Pr	iority				
	on-establishment of opinion with regard to novelty, inventive step and industrial oplicability				
	ack of unity of invention				
Box No. V Re	easoned statement under Article 35(2) with regard to novelty, inventive step or dustrial applicability; citations and explanations supporting such statement				
	ortain documents cited				
Box No. VII Ce	ertain defects in the international application				
Box No. VIII Ce	ertain observations on the international application				
Date of submission of the demand		Date of completion	of this report		
15. December 2005 (15.12.2005)		16 October 2006 (16.	10.2006)		
15 December 2005 (15.12.2005) Name and mailing address of the IPEA/ US		Authorized officer	18/10 0 1 1/2		
Mail Stop PCT, Attn: IPEA/US			Mashuse Carlle		
Commissioner for Patents P.O. Box 1450		Stephone B. Allen	of way was		
Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201		Telephone No. 703-0	000-0000		
Form PCT/IPEA/409 (cover sheet)(April 2005)					

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application	No.
PCT/US04/05905	

Box No. I Basis of the report						
1. With regard to the language, this report is based on:						
the international application in the language in which it was filed.						
a translation of the international application into, which is the language of a translation furnished for the purposes of:						
international search (under Rules 12.3 and 23.1(b))						
publication of the international application (under Rule 12.4(a))						
international preliminary examination (under Rules 55.2(a) and/or 55.3(a))						
2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):						
the international application as originally filed/furnished						
the description:						
pages 1-10 as originally filed/furnished pages* NONE received by this Authority on						
pages* NONE received by this Authority on						
the claims:						
pages NONE as originally filed/furnished						
pages* NONE as amended (together with any statement) under Article 19						
pages* 11-13B received by this Authority on 15 December 2005 (15.12.2005) pages* NONE received by this Authority on						
the drawings:						
pages 1 as originally filed/furnished pages* NONE received by this Authority on						
pages* NONE received by this Authority on						
a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.						
<u>-</u>						
The amendments have resulted in the cancellation of:						
the description, pages_NONE						
the claims, Nos_NONE						
the drawings, sheets/figs_NONE						
the sequence listing (specify): NONE						
any table(s) related to the sequence listing (specify): NONE						
This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).						
the description, pages						
the claims, Nos.						
the drawings, sheets/figs						
the sequence listing (specify):						
any table(s) related to the sequence listing (specify):						
If item 4 applies, some or all of those sheets may be marked "superseded."						
orm PCT/IPEA/409 (Box No. I) (April 2005)						

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/US04/05905

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement							
1. Statement							
Novelty (N)	Claims	1-11	YES				
		NONE	NO				
Inventive Step (IS)	Claims	1.11	YES				
inventive Step (13)		I-11 NONE	NO				
			•				
Industrial Applicability (IA)			YES				
	Claims	NONE	NO				
Claims 1-11 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest a method and apparatus fro providing non-contact data selection comprising transmitting means comprising means for transmitting a plurality of acoustic signals from at least three groupings, each of the at least three groupings comprising a signal emitter for emitting one of the plurality of acoustic signals of a unique frequency and a signal receiver for receiving one of the plurality of acoustic signals, means for altering the path of at least one of the transmitted plurality of acoustic signals through interaction with a selection device, means for detecting at least one of the altered plurality of acoustic signals; means for determining a position of the selection device from the at least one of the altered plurality of acoustic signals, and means for correlating the position of the selection device to the at least one data selection. Claims 1-10 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry. NEW CITATIONS							
			7000				

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WHAT IS CLAIMED IS:

1. A method of providing non-contact data selection, comprising the steps of:

providing at least one data selection;

transmitting a plurality of signals in proximity to said plurality of data selections;

said transmitting step comprising transmitting a plurality of acoustic signals from at least three groupings, each of said at least three groupings comprising a signal emitter for emitting one of said plurality of acoustic signals of a unique frequency and a signal receiver for receiving one of said plurality of acoustic signals;

altering the path of at least one of said transmitted plurality of acoustic signals through interaction with a selection device;

detecting at least one of said altered plurality of acoustic signals;

determining a position of said selection device from said at least one of said altered plurality of acoustic signals; and

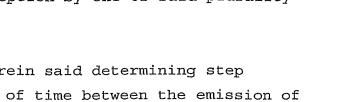
correlating said position of said selection device to said at least one data selection.

2. The method of claim 1 wherein said altering step comprises reflecting each of said plurality of acoustic signals off of



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said selection device for reception by one of said plurality of signal receivers.



- 3. The method of claim 1 wherein said determining step comprises measuring an amount of time between the emission of each of said plurality of acoustic signals and reception by said plurality of signal receivers, converting said amounts of time to a plurality of distances, and using said plurality of distances to locate said selection device.
- 4. The method of claim 1 wherein said providing said at least one data selection comprises providing said at least one data selection on an elevator.
- 5. A method of providing non-contact data selection, comprising the steps of:

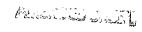
providing at least one data selection;

transmitting a plurality of signals in proximity to said plurality of data selections;

said transmitting step comprising emitting a plurality of electromagnetic signals from a plurality of signal emitters each aimed at a corresponding signal receiver;

altering the path of at least one of said transmitted plurality of signals through interaction with a selection device;

said altering step comprising partially blocking said path of at least one of said plurality of electromagnetic signals;



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detecting at least one of said altered plurality of signals;

said detecting step comprising measuring an intensity of each of said electromagnetic signals at each of said plurality of signal receivers;

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determining a position of said selection device from said at least one of said altered plurality of signals; and

correlating said position of said selection device to said at least one data selection.

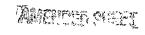
- 6. The method of claim 5 wherein said providing said at least one data selection comprises providing said at least one data selection on an elevator.
- 7. A non-contact data selection system comprising:

at least one data selection;

means for transmitting a plurality of signals in proximity to said plurality of data selections;

said transmitting means comprising means for transmitting a plurality of acoustic signals from at least three groupings, each of said at least three groupings comprising a signal emitter for emitting one of said plurality of acoustic signals of a unique frequency and a signal receiver for receiving one of said plurality of acoustic signals;

means for altering the path of at least one of said transmitted plurality of acoustic signals through interaction with a selection device;



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means for detecting at least one of said altered plurality of acoustic signals;

means for determining a position of said selection device from said at least one of said altered plurality of acoustic signals; and

means for correlating said position of said selection device to said at least one data selection.

- 8. The system of claim 7 wherein said at least one data selection corresponds to a floor accessible by an elevator.
- 9. The system of claim 7 wherein said altering means comprises means for reflecting each of said plurality of acoustic signals off of said selection device for reception by one of said plurality of signal receivers.
- 10. The system of claim 7 wherein said determining means comprises means for measuring an amount of time between the emission of each of said plurality of acoustic signals and reception by said plurality of signal receivers, means for converting said amounts of time to a plurality of distances, and means for using said plurality of distances to locate said selection device.
- 11. A non-contact data selection system comprising:

at least one data selection;

means for transmitting a plurality of signals in proximity to said plurality of data selections;

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said transmitting means comprising means for emitting a plurality of electromagnetic signals from a plurality of signal emitters each aimed at a corresponding signal receiver;

means for altering the path of at least one of said transmitted plurality of signals through interaction with a selection device;

said altering means comprising means for partially blocking said path of at least one of said plurality of electromagnetic signals;

means for detecting at least one of said altered plurality of signals;

said detecting means comprising means for measuring an intensity of each of said electromagnetic signals at each of said plurality of signal receivers;

means for determining a position of said selection device from said at least one of said altered plurality of signals; and

means for correlating said position of said selection device to said at least one data selection.